

BERICHTIGTE FASSUNG

(19) Weltorganisation für geistiges Eigentum
Internationales Büro



(43) Internationales Veröffentlichungsdatum
3. Juni 2004 (03.06.2004)

PCT

(10) Internationale Veröffentlichungsnummer
WO 2004/046674 A1

(51) Internationale Patentklassifikation⁷: **G01K 11/32**

(21) Internationales Aktenzeichen: PCT/EP2003/012896

(22) Internationales Anmeldedatum:
18. November 2003 (18.11.2003)

(25) Einreichungssprache: Deutsch

(26) Veröffentlichungssprache: Deutsch

(30) Angaben zur Priorität:
102 53 821.2 18. November 2002 (18.11.2002) DE

(71) Anmelder (für alle Bestimmungsstaaten mit Ausnahme von US): RUBITEC GESELLSCHAFT FÜR INNOVATION UND TECHNOLOGIE DER RUHR-UNIVERSITÄT BOCHUM MBH [DE/DE]; Universitätsstrasse 150, 44801 Bochum (DE).

(72) Erfinder; und

(75) Erfinder/Anmelder (nur für US): SCHWEIGER, Gustav [DE/DE]; Eichendorffstrasse 15, 47057 Duisburg (DE).

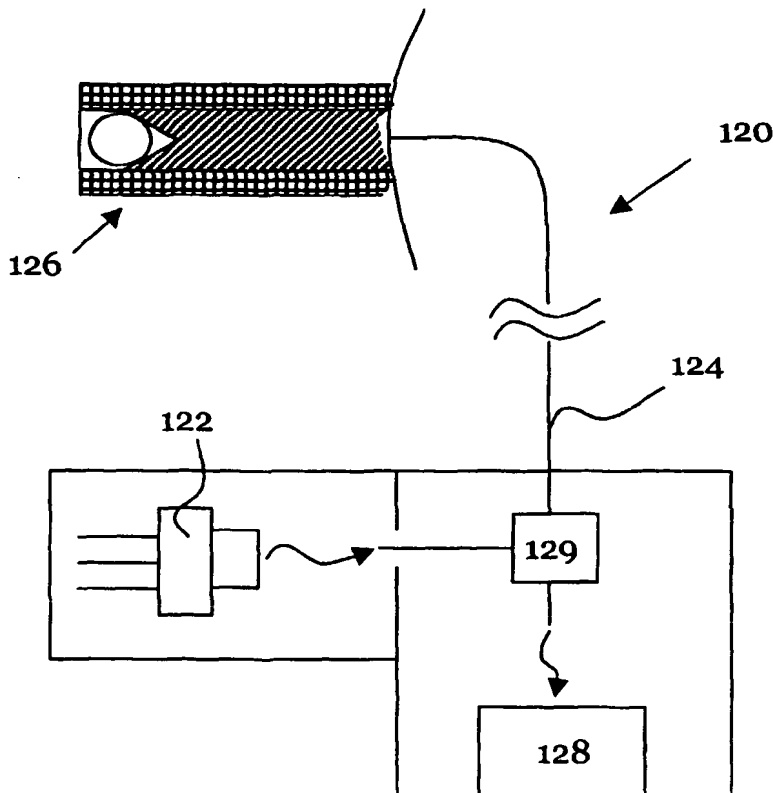
(74) Anwalt: WENZEL & KALKOFF; Postfach 24 48, 58414 Witten (DE).

(81) Bestimmungsstaaten (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR,

[Fortsetzung auf der nächsten Seite]

(54) Title: MEASURING DEVICE

(54) Bezeichnung: MESSVORRICHTUNG



(57) Abstract: Disclosed is a device for measuring physical parameters, particularly temperatures, in which light of a light source is coupled into and out of an optical resonator that is embodied as a microparticle by means of one or several optical waveguides. In order to optically and mechanically couple the resonator to an optical waveguide in the most favorable manner possible, the resonator is disposed within a recess that is formed on the optical waveguide, is retained there in a mechanical manner, and is optically coupled to the optical waveguide. The inventive optical waveguide can be configured as a hollow guide. Alternatively, a cuneiform measuring tip is provided, comprising two converging webs, between which the resonator is arranged within a front portion of the measuring tip, said webs being made of light-conducting material or encompassing a part made of light-conducting material while being coupled to at least one light-conducting fiber that is connected to the light source.

[Fortsetzung auf der nächsten Seite]